

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended) A rotary internal combustion engine, comprising:  
a compression chamber having a smooth chamber wall adapted to receive fuel and compress the fuel;  
an ignition chamber having a smooth chamber wall adapted to receive compressed fuel from the compression chamber and combust the compressed fuel;  
a center wall between the compression chamber and ignition chamber adapted to allow passage of compressed fuel from the compression chamber to the ignition chamber; and  
a shaft being concentrically disposed and extending through the compression chamber, the ignition chamber and the center wall;  
the compression chamber having an oval shape and a first rotor therein creating a first and second arcuate compression compartment zones; and  
timed ignition elements in communication with the arcuate compression compartment zones.

Claim 2 (currently amended) The apparatus of claim 1 further comprising ~~a first rotor rotatably received within the compression chamber and~~ a second rotor rotatably received within the ignition chamber.

Claim 3 (previously amended) The apparatus of claim 2, wherein each rotor has a vane slidably mounted in a radially

extended slot so that rotation of the rotors causes outer ends of the vane to engage the chambers to vary the space on opposite sides of the vane when the rotors are rotating.

Claim 4 (original) The apparatus of claim 1, further comprising a transfer port in the center wall adapted to permit compressed fuel to move from the compression chamber into the ignition chamber.

Claim 5 (original) The apparatus of claim 2, further comprising a transfer port in the center wall adapted to permit compressed fuel to move from the first rotor to the second rotor, and wherein the first rotor includes a fuel injection port for permitting the flow of fuel from the compression chamber to the transfer port.

Claim 6 (original) The apparatus of claim 2, further comprising a transfer port in the center wall adapted to permit compressed fuel to move from the first rotor to the second rotor, and wherein an ignition port in the second rotor conveys fuel from the transfer port to the ignition chamber.

Claim 7 (original) The apparatus of claim 1, wherein a plurality of the rotary internal combustion engines are used in series along the same axis of rotation.

Claim 8 (currently amended) A rotary internal combustion engine, comprising:  
A compression chamber having a smooth chamber wall adapted to receive fuel and compress the fuel;

an ignition chamber having a smooth chamber wall adapted to receive compressed fuel from the compression chamber and combust the compressed fuel, the ignition chamber being in alignment with the compression chamber;

a center wall between the compression chamber and ignition chamber adapted to allow passage of compressed fuel from the compression chamber to the ignition chamber;

a shaft being disposed concentrically and extending through the compression chamber, the ignition chamber and the center wall;

the compression chamber having an oval shaped chamber wall;

the ignition chamber having an oval shaped chamber wall;

a first rotor having a circular perimeter surface rotatably received within the compression chamber creating arcuate compression compartment zones with the oval shaped chamber wall of the compression chamber; and;

a second rotor having a circular perimeter surface rotatably received within the ignition chamber;

a pair of oppositely disposed vanes slidably mounted in radially extended slots in each of the rotors so that rotation of the rotors will cause outer ends of the vanes to engage the surfaces of the oval-shaped chamber walls to vary the space on opposite sides of the vanes as they move through the arcuate compression compartment zones when the rotors are rotating; and

fuel injection ports adjacent the vanes on the rotor in the compression chamber for permitting the flow of fuel from the perimeter of the first rotor to a surface thereof adjacent the center section.

Claim 9 (previously amended) The apparatus of claim 8, wherein the oval shaped chamber walls have arcuate compartment zones between perimeter surfaces of the rotors and the lengthwise ends.

Claim 10 (cancelled)

Claim 11 (original) The apparatus of claim 8, further comprising transfer ports in the center wall adapted to permit compressed fuel to move from the compression chamber into the ignition chamber.

Claim 12 (original) The apparatus of claim 11, wherein the first rotor includes fuel injection ports for permitting the flow of fuel from the compression chamber to the transfer ports.

Claim 13 (original) The apparatus of claim 11, wherein ignition ports in the second rotor to convey fuel from the transfer ports to the ignition chamber.

Claim 14 (previously cancelled)